

2011 Military Health System Conference

Research Advances in Building Resilience in Psychological Health, Suicide Prevention, and Effects of Deployments on Family Members

The Quadruple Aim: Learning & Growth, Readiness, Experience of Care

COL Carl Castro



Military Operational Medicine Research Program

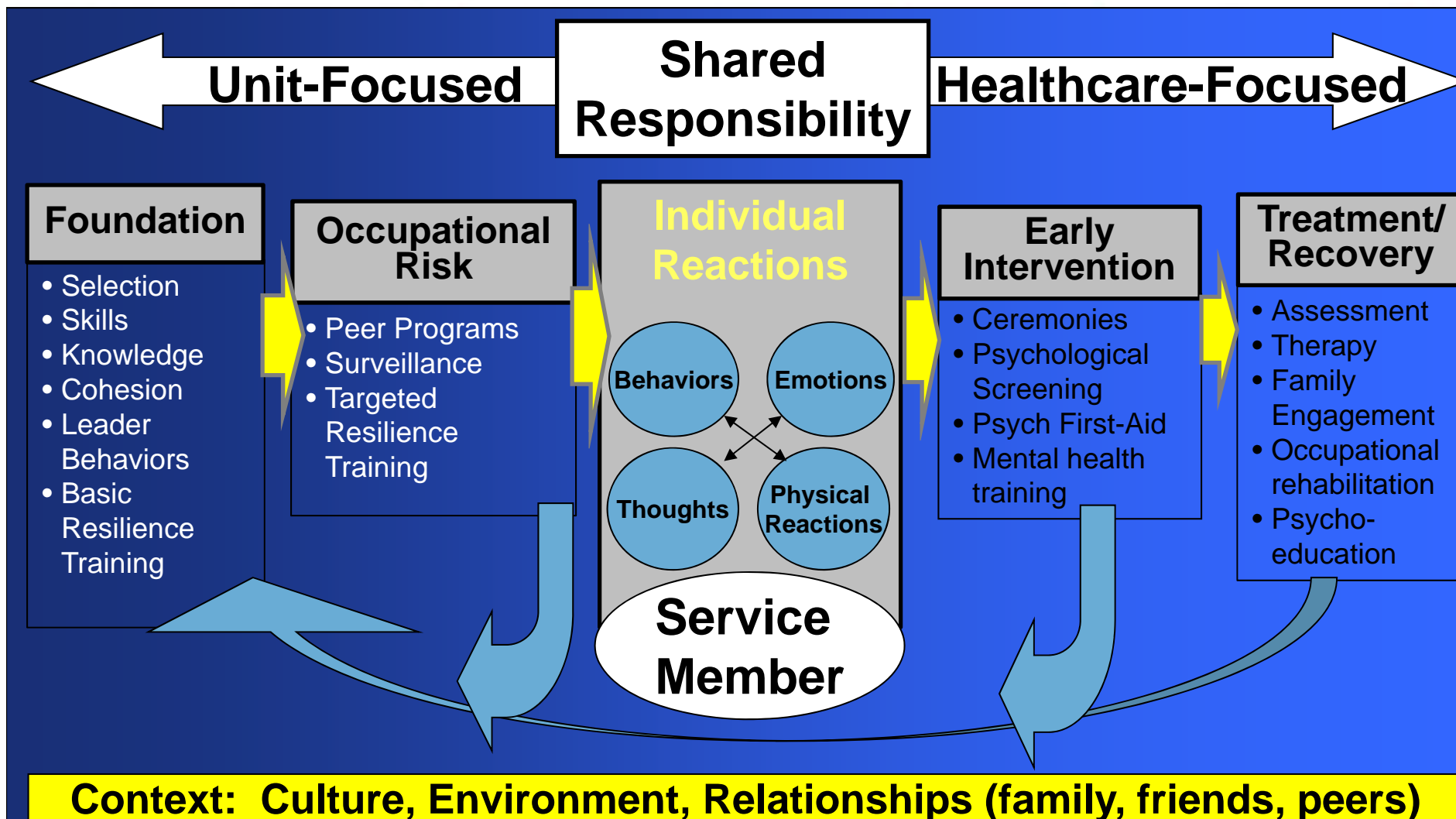
Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE JAN 2011		2. REPORT TYPE		3. DATES COVERED 00-00-2011 to 00-00-2011	
4. TITLE AND SUBTITLE Research Advances in Building Resilience in Psychological Health, Suicide Prevention, and Effects of Deployments on Family Members				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) US Army Medical Research and Materiel Command ,Military Operational Medicine Research Program,Fort Detrick,MD,21702				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES presented at the 2011 Military Health System Conference, January 24-27, National Harbor, Maryland					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 13	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

Problems/Threats



- Completed Soldier suicide rates have risen
- High op-tempo and multiple deployment demands
- Military families face unique life challenges
- Behavioral health problems
- Alcohol/substance abuse & risky behaviors
- Environmental and situational strains
- Measures of resilience are not well-established and have not been validated in military populations

Military Occupational Mental Health Model



Source: The Technical Cooperation Panel 13

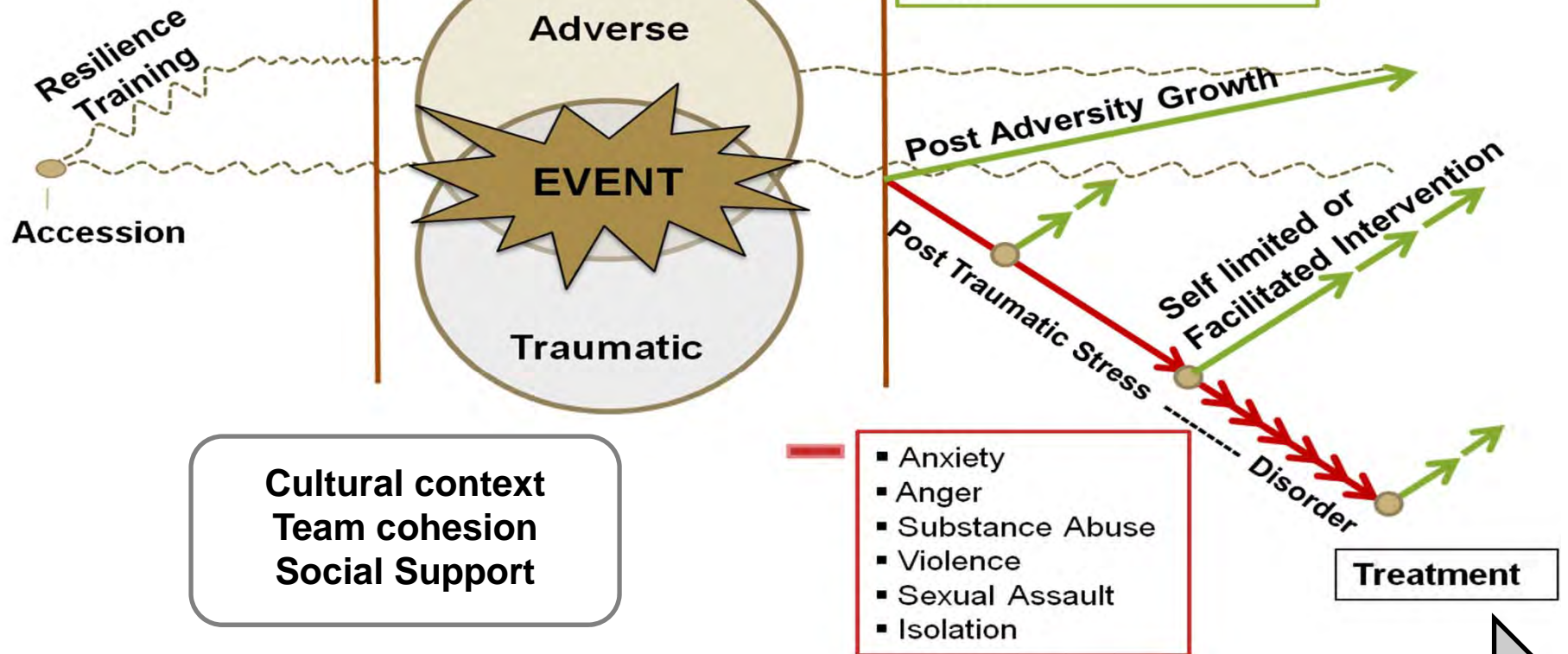
Comprehensive Soldier Fitness Model of Resilience



**COMPREHENSIVE
SOLDIER FITNESS**
STRONG MINDS ★ STRONG BODIES



- Self Confidence
- Enhanced Leadership
- Personal Strength
- Spiritual Growth
- Appreciation of Life



RESEARCH TARGETS:

Universal Prevention

At Risk Prevention

Treatment

Recovery

Mindfulness-Based Military Training in Army Infantry Platoons



Amishi Jha, PhD

University of Pennsylvania

\$1,000,000

Period of Performance: 48 months

Awarded: Feb 09

MILESTONES	Months	0-12	13-24	25-36	37-48
Coordinate & deliver pre-deployment psychological health programs					
Data collection and analysis of pre-deployment programs (MMFT and PP) and no intervention control					
Analyze data and disseminate results					

Aims

- Compare & contrast efficacy of a 16-hour version of Mindfulness-based Mind Fitness Training (MMFT) to a 16-hour active (control) comparison intervention, focused on the tenets of positive psychology (PP) to examine mechanisms of action
- Recruit 3 US Army infantry platoons to participate, including a no-intervention control group

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Approach

- A 4-year study of 120 Soldiers, 3 US Army infantry platoons of 40 Soldiers
- The 3 organic platoons will be matched and subjects will be tested pre- and post-training and post-deployment

Deliverables

- Knowledge that will guide best practices for noninvasive, long-term intervention methods to promote psychological resilience in military personnel

Optimizing Delivery of Mindfulness Based Military Training



Amishi Jha, PhD
University of Pennsylvania
\$1,000,000
Period of Performance: 36 months
Awarded: Mar 09

MILESTONES	Months	0-12	13-24	25-36
Intervention planning & approval		<div></div>		
Data collection & analyses			<div></div>	
Analyze data and synthesize results				<div></div>
Disseminate results				<div></div>

Aims

- Compare & contrast 3 delivery vehicles of military Mindfulness-based Mind Fitness Training (MMFT) & determine components most critical for improving neural, cognitive, and affective functioning
- M24 (mindfulness training + didactic material about military application, stress, trauma and resilience)
- M8-D (didactic content)
- M8-MT (mindfulness skills, 24 or 8 hours)

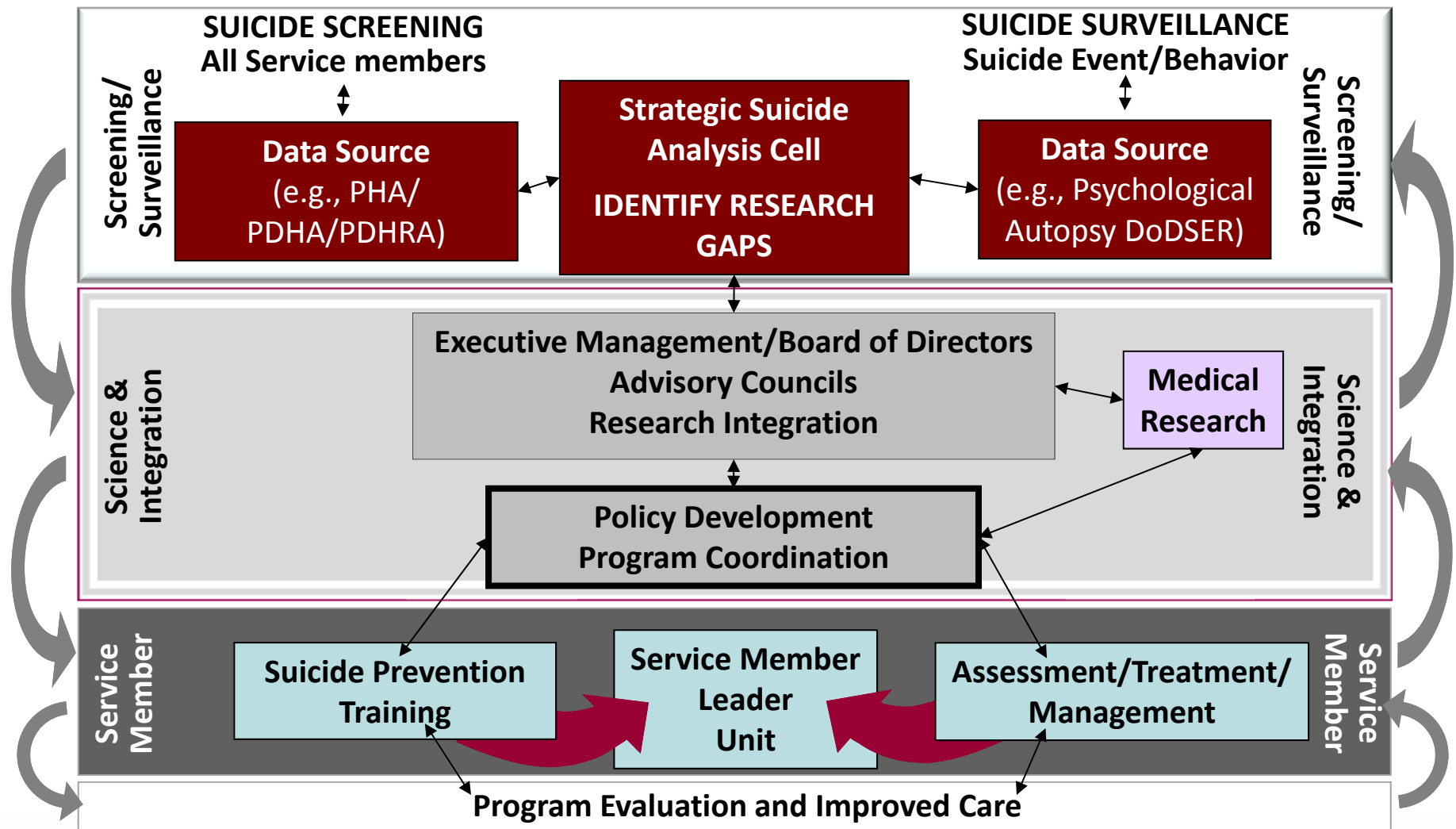
Approach

- 3-year study of US Army infantry platoons, comparing and contrasting the efficacy of three delivery vehicles of MMFT

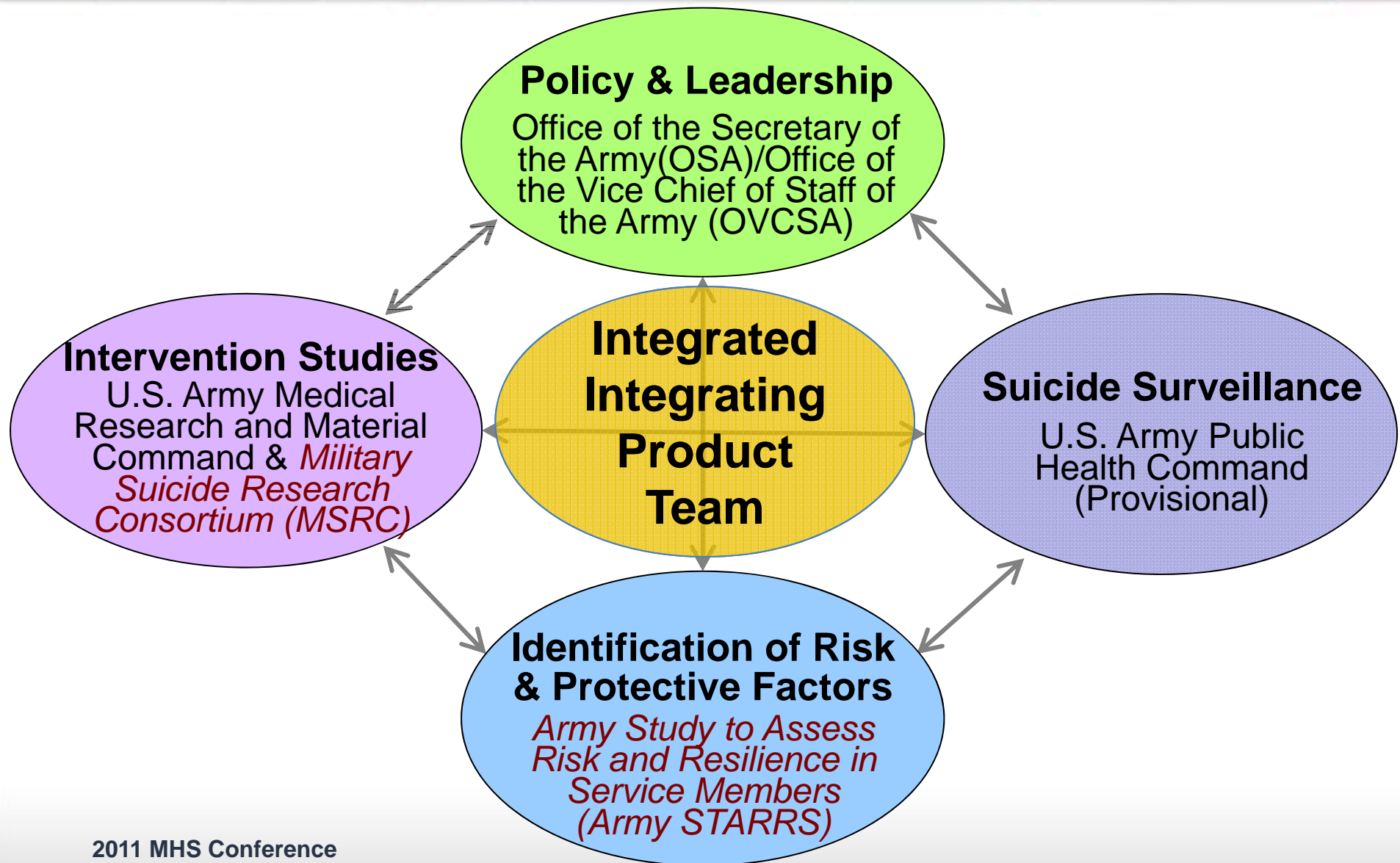
Deliverables

- Knowledge informing best practices for noninvasive, long-term intervention methods to promote psychological resilience in military personnel

Evidence-Based Military Public Health Suicide Prevention Model



Military Suicide Research Integration and Coordination



MRMC Suicide Research Projects (\$79M)

Principal Investigator	Organization	Proposal Title	Award
Bob Ursano, MD	USUHS	Army Study to Assess Risk and Resilience in Service Members (Army STARRS)	\$50,000,000 60 months
Mark Reger, PhD	Madigan Army Medical Center	The Association between Suicide and OEF/OIF Deployment History	\$1,961,003 36 months
Marianne Goodman, PhD	James J Peters VAMC	High Risk Suicidal Behavior in Veterans- Assessment of Predictors and Efficacy of Dialectical Behavior Therapy	\$1,279,912 36 months
Toby Cooper, BCPS	Darnell Army Medical Center	Drug Related Overdoses Among Military Personnel	\$282,040 18 months
Marjan Holloway, PhD	USUHS	A Brief Intervention to Reduce Suicide Risk in Military Service Members and Veterans	\$2,666,717 36 months
Marjan Holloway, Ph.D.	USUHS	Pilot Trial of Inpatient Cognitive Therapy for the Prevention of Suicide in Military Personnel With Acute Stress Disorder or PTSD	\$442,000 48 months
Charles Hoge, MD	Walter Reed Army Institute of Research	Suicidal Ideation in the Combat Environment	\$65,000 24 months
Thomas Joiner, PhD	Florida State University (FSU)	Optimizing Screening and Risk Assessment for Suicide Risk in the U.S. Military	\$753,159 36 months
Tyler Smith, PhD	Naval Health Research Center	Mental Health Symptoms as a Determinant for Suicide Attempt and Completion	\$100,000 12 months
Matthew Miller, MD	Harvard College	Antidepressants and the Risk of Self-harm and Unintentional Injury Among Younger Veterans	\$656,184 24 months
David Rudd, PhD	Texas Tech University	Brief Cognitive Behavioral Therapy for Military Populations	\$1,967,035 36 months
Peter Gutierrez, PhD	Denver VAMC	Blister Packaging Medication to Increase Treatment Adherence and Clinical Response: Impact on Suicide-related Morbidity & Mortality	\$1,173,408 36 months
Thomas Joiner, PhD & Peter Gutierrez, PhD	FSU & Denver VAMC	Military Suicide Research Consortium	\$17,000,000 60 months

A Brief Intervention to Reduce Suicide Risk in Military Service Members and Veterans



Marjan Holloway, PhD

**Uniformed Services University of
the Health Sciences**

\$2,666,717

Period of Performance: 36 months

Awarded: Sep 09

MILESTONES	Months	0-12	13-24	25-36
Adapt and examine feasibility of SAFE-MIL				
Conduct RCT				
Data analyses				
Disseminate study findings				

Aims

- Evaluate written safety planning intervention efficacy on suicide ideation, related coping, and help seeking attitudes for hospitalized military personnel at high suicide risk
- Evaluate effectiveness of safety planning intervention on suicide attempts, ideation, attendance of outpatient mental health and substance abuse interventions, and suicide-related coping for Veterans at high suicide risk in emergency department (ED) settings

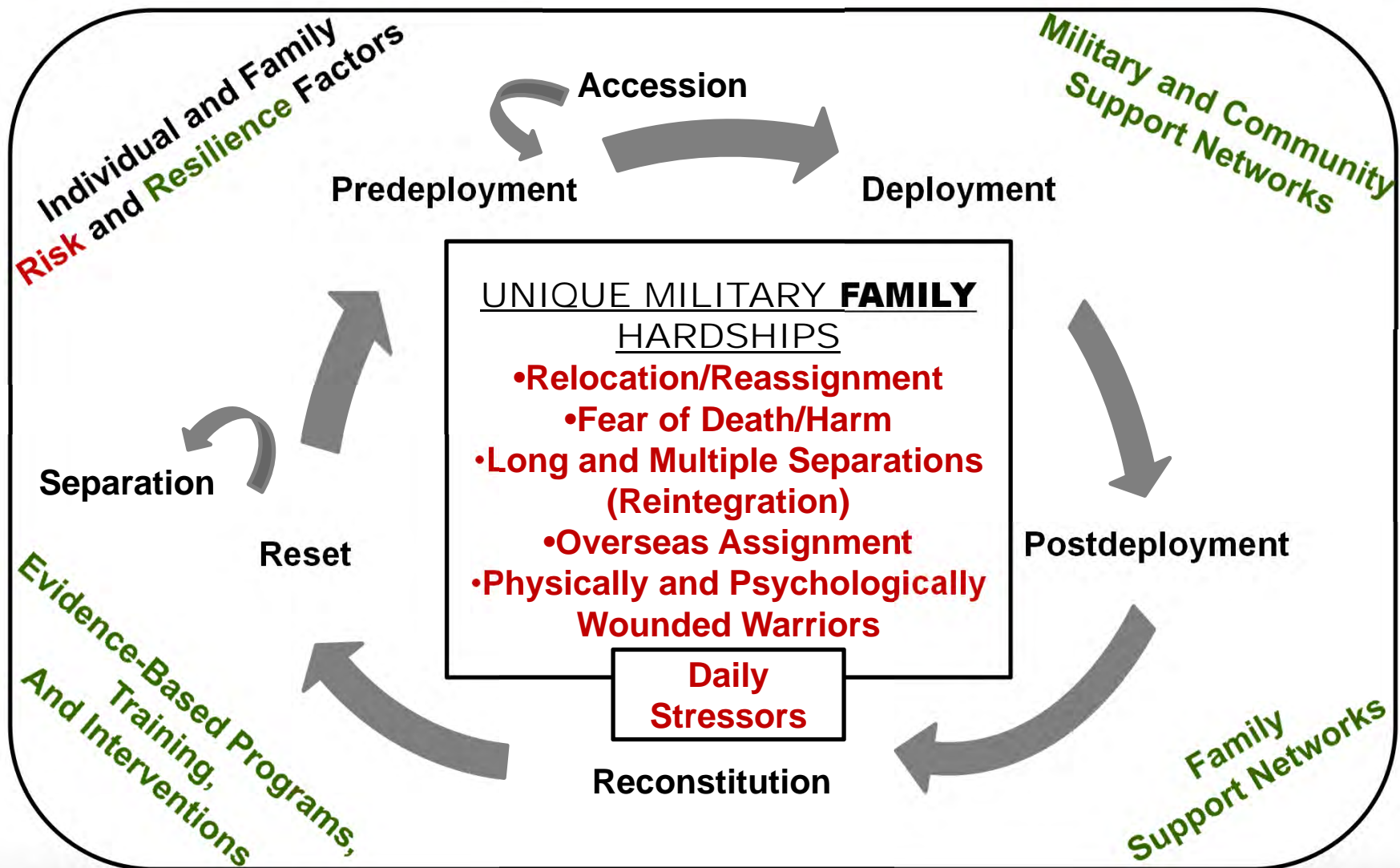
Approach

- Two separate but related projects will compare the study interventions with enhanced usual care conditions on suicide-related outcomes. Project 1 is a RCT, Project 2 is a quasi-experimental design

Deliverables

- Knowledge about efficacy of safety planning in reducing suicide ideation, related coping, and negative attitudes toward help seeking

Framework for Military Family Research



Reintegration: The Role of Spouse READI Telephone Support Groups



Linda Nichols, PhD

VAMC, Memphis

\$1,073,000

Period of Performance: 48 months

Awarded: Sep 09

MILESTONES	Months	0-12	13-24	25-36	37-48
IRB approval		<div></div>			
Hire & train personnel		<div></div>			
Recruitment		<div></div>			
Intervention & data collection		<div></div>			
Data entry/cleaning		<div></div>			
Analyze results				<div></div>	
Dissemination of results				<div></div>	

Aims

- Develop post-deployment spouse Resilience Education and Deployment Information (READI) (formerly spouse Battlemind) telephone support groups to enhance spouse and service member resilience
- Determine participant satisfaction, adherence to therapeutic recommendations, and changes in spouse mental health with spouse telephone resilience training
- Incorporate lessons learned from pilot work

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Approach

- A randomized controlled trial of spouse READI; train telephone groups for 14 sessions over 7 months in resilience training, education groups, or usual care
- Outcome measures of depression, anxiety, Family functioning, and participant satisfaction at baseline, 7, and 12 months

Deliverables

- Manualized intervention to help spouses & facilitate reintegration of the returning Soldier

Summary/Conclusion



- All medical research conducted within DoD is threat based
- Research efforts are funded to support a research strategy, which is designed to solve the problems identified in the threat analysis
- Funded research is actively managed to ensure accountability, to maintain awareness of findings, and to ensure integration with other efforts
- Identified solutions are rapidly translated to the field.